SEQUENCE LISTING

```
<110> Turner, C. Alexander Jr.
Donoho, Gregory
Nehls, Michael
Hilbun, Erin
Zambrowicz, Brian
Sands, Arthur T.
```

<120> Novel Human Proteins and Polynucleotides Encoding the Same

```
<130> LEX-0070-USA
```

<150> US 60/160,106

<151> 1999-10-18

<150> US 60/162,547

<151> 1999-10-29

<160> 7

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1356

<212> DNA

<213> homo sapiens

<400> 1

/400> I						
atggttcccg	aggtgagggt	cctctcctcc	ttgctgggac	tcgcgctgct	ctggttcccc	60
ctggactccc	acgctcgagc	ccgcccagac	atgttctgcc	ttttccatgg	gaagagatac	120
tcccccggcg	agagctggca	cccctacttg	gagccacaag	gcctgatgta	ctgcctgcgc	180
tgtacctgct	cagagggcgc	ccatgtgagt	tgttaccgcc	tccactgtcc	gcctgtccac	240
tgcccccagc	ctgtgacgga	gccacagcaa	tgctgtccca	agtgtgtgga	acctcacact	300
ccctctggac	tccgggcccc	accaaagtcc	tgccagcaca	acgggaccat	gtaccaacac	360
ggagagatct	tcagtgccca	tgagctgttc	ccctcccgcc	tgcccaacca	gtgtgtcctc	420
tgcagctgca	cagagggcca	gatctactgc	ggcctcacaa	cctgccccga	accaggctgc	480
-	_	agactcctgc				540
caatcggatg	aagaggacag	tgtgcagtcg	ctccatgggg	tgagacatcc	tcaggatcca	600
tgttccagtg	atgctgggag	aaagagaggc	ccgggcaccc	cagcccccac	tggcctcagc	660
	=	tcgccacttc				720
		acataagaaa				780
		ggccttccgt				840
		ggactgccag				900
cgtcaccccg	agaaagtggc	tgggaagtgc	tgcaagattt	gcccagagga	caaagcagac	960
		ttctaccagg				1020
		cccagacaac				1080
		cctctggaag				1140
		aaggccacac				1200
		tccagaaaga				1260
		tcttcctagc		gagctgaagg	tcacggccag	1320
tccagacaaa	gtgaccaaga	cataacaaag	acctaa			1356

<210> 2

<211> 451 <212> PRT

<213> homo sapiens

<400> 2

Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala Leu Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp Met Phe Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser Trp His Pro 40 Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg Cys Thr Cys Ser Glu Gly Ala His Val Ser Cys Tyr Arg Leu His Cys Pro Pro Val His 70 75 Cys Pro Gln Pro Val Thr Glu Pro Gln Gln Cys Cys Pro Lys Cys Val 85 90 Glu Pro His Thr Pro Ser Gly Leu Arg Ala Pro Pro Lys Ser Cys Gln 100 105 His Asn Gly Thr Met Tyr Gln His Gly Glu Ile Phe Ser Ala His Glu 120 Leu Phe Pro Ser Arg Leu Pro Asn Gln Cys Val Leu Cys Ser Cys Thr Glu Gly Gln Ile Tyr Cys Gly Leu Thr Thr Cys Pro Glu Pro Gly Cys 150 155 Pro Ala Pro Leu Pro Leu Pro Asp Ser Cys Cys Gln Ala Cys Lys Asp 170 165 Glu Ala Ser Glu Gln Ser Asp Glu Glu Asp Ser Val Gln Ser Leu His 180 185 Gly Val Arg His Pro Gln Asp Pro Cys Ser Ser Asp Ala Gly Arg Lys 200 Arg Gly Pro Gly Thr Pro Ala Pro Thr Gly Leu Ser Ala Pro Leu Ser 215 220 Phe Ile Pro Arg His Phe Arg Pro Lys Gly Ala Gly Ser Thr Thr Val 230 235 Lys Ile Val Leu Lys Glu Lys His Lys Lys Ala Cys Val His Gly Gly 245 Lys Thr Tyr Ser His Gly Glu Val Trp His Pro Ala Phe Arg Ala Phe 265 Gly Pro Leu Pro Cys Ile Leu Cys Thr Cys Glu Asp Gly Arg Gln Asp 280 Cys Gln Arg Val Thr Cys Pro Thr Glu Tyr Pro Cys Arg His Pro Glu 295 300 Lys Val Ala Gly Lys Cys Cys Lys Ile Cys Pro Glu Asp Lys Ala Asp 310 315 Pro Gly His Ser Glu Ile Ser Ser Thr Arg Cys Pro Lys Ala Pro Gly 330 Arg Val Leu Val His Thr Ser Val Ser Pro Ser Pro Asp Asn Leu Arg 345 Arg Phe Ala Leu Glu His Glu Ala Ser Asp Leu Val Glu Ile Tyr Leu 360 Trp Lys Leu Val Lys Asp Glu Glu Thr Glu Ala Gln Arg Gly Glu Val 375 Pro Gly Pro Arg Pro His Ser Gln Asn Leu Pro Leu Asp Ser Asp Gln 395 390 Glu Ser Gln Glu Ala Arg Leu Pro Glu Arg Gly Thr Ala Leu Pro Thr



A CHARGE AND THE US

```
405
                                    410
Ala Arg Trp Pro Pro Arg Arg Ser Leu Glu Arg Leu Pro Ser Pro Asp
                                425
Pro Gly Ala Glu Gly His Gly Gln Ser Arg Gln Ser Asp Gln Asp Ile
        435
                            440
Thr Lys Thr
    450
<210> 3
<211> 1290
<212> DNA
<213> homo sapiens
<400> 3
                                                                        60
atggttcccg aggtgagggt cctctcctcc ttgctgggac tcgcgctgct ctggttcccc
ctggactccc acgctcgagc ccgcccagac atgttctgcc ttttccatgg gaagagatac
                                                                       120
                                                                       180
tecceeggeg agagetggea eccetaettg gageeacaag geetgatgta etgeetgege
tgtacctgct cagagggcgc ccatgtgagt tgttaccgcc tccactgtcc gcctgtccac
                                                                       240
                                                                       300
tgcccccagc ctgtgacgga gccacagcaa tgctgtccca agtgtgtgga acctcacact
ccctctggac tccgggcccc accaaagtcc tgccagcaca acgggaccat gtaccaacac
                                                                       360
                                                                       420
ggagagatet teagtgeeca tgagetgtte eecteegge tgeecaacea gtgtgteete
tgcagctgca cagagggcca gatctactgc ggcctcacaa cctgccccga accaggctgc
                                                                       480
ccagcacccc tcccrctgcc agactcctgc tgccargcct gcaaagatga ggcaagtgag
                                                                       540
caatcggatg aagaggacag tgtgcagtcg ctccatgggg tgagacatcc tcaggatcca
                                                                       600
tgttccagtg atgctgggag aaagagaggc ccgggcaccc cagccccac tggcctcagc
                                                                       660
gcccctctga gcttcatccc tcgccacttc agacccaagg gagcaggcag cacaactgtc
                                                                       720
aagatcgtcc tgaaggagaa acataagaaa gcctgtgtgc atggcgggaa gacgtactcc
                                                                       780
cacggggagg tgtggcaccc ggccttccgt gccttcggcc ccttgccctg catcctatgc
                                                                       840
acctgtgagg atggccgcca ggactgccag cgtgtgacct gtcccaccga gtacccctgc
                                                                       900
cgtcaccccg agaaagtggc tgggaagtgc tgcaagattt gcccagagga caaagcagac
                                                                       960
cctggccaca gtgagatcag ttctaccagg tgtcccaagg caccgggccg ggtcctcgtc
                                                                      1020
                                                                      1080
cacacategg tatececaag eccagacaac etgegteget ttgeeetgga acaegaggee
                                                                      1140
tcggacttgg tggagatcta cctctggaag ctggtraaag gaatcttcca cttgactcag
                                                                      1200
atcaagaaag teaggaagca agactteeag aaagaggeac agcactteeg actgeteget
ggcccccacg aaggtcactg gaacgtcttc ctagcccaga ccctggagct gaaggtcacg
                                                                      1260
                                                                      1290
gccagtccag acaaagtgac caagacataa
<210> 4
<211> 429
<212> PRT
<213> homo sapiens
<400> 4
Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala Leu
                                    10
Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp Met Phe
                                25
                                                     30
Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser Trp His Pro
                            40
Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg Cys Thr Cys Ser
Glu Gly Ala His Val Ser Cys Tyr Arg Leu His Cys Pro Pro Val His
                    70
                                        75
Cys Pro Gln Pro Val Thr Glu Pro Gln Gln Cys Cys Pro Lys Cys Val
```

Glu Pro His Thr Pro Ser Gly Leu Arg Ala Pro Pro Lys Ser Cys Gln

			100					105					110		
His .	Asn	Gly 115	Thr	Met	Tyr	Gln	His 120	Gly	Glu	Ile	Phe	Ser 125	Ala	His	Glu
Leu	Phe 130	Pro	Ser	Arg	Leu	Pro 135	Asn	Gln	Cys	Val	Leu 140	Cys	Ser	Cys	Thr
Glu 145	Gly	Gln	Ile	Туг	Cys 150	Gly	Leu	Thr	Thr	Cys 155	Pro	Glu	Pro	Gly	Cys 160
Pro .	Ala	Pro	Leu	Pro 165	Leu	Pro	Asp	Ser	Cys 170	Cys	Gln	Ala	Cys	Lys 175	Asp
Glu .			180					185					190		
Gly	Val	Arg 195	His	Pro	Gln	Asp	Pro 200	Cys	Ser	Ser	Asp	Ala 205	Gly	Arg	Lys
Arg	Gly 210	Pro	Gly	Thr	Pro	Ala 215	Pro	Thr	Gly	Leu	Ser 220	Ala	Pro	Leu	Ser
Phe 225	Ile	Pro	Arg	His	Phe 230	Arg	Pro	Lys	Gly	Ala 235	Gly	Ser	Thr	Thr	Val 240
Lys	Ile	Val	Leu	Lys 245	Glu	Lys	His	Lys	Lys 250	Ala	Cys	Val	His	Gly 255	Gly
Lys	Thr	Tyr	Ser 260	His	Gly	Glu	Val	Trp 265	His	Pro	Ala	Phe	Arg 270	Ala	Phe
Gly	Pro	Leu 275	Pro	Cys	Ile	Leu	Cys 280	Thr	Cys	Glu	Asp	Gly 285	Arg	Gln	Asp
	290	_			_	295					300				
Lys 305	Val	Ala	Gly	Lys	Cys 310	Cys	Lys	Ile	Cys	Pro 315	Glu	Asp	Lys	Ala	Asp 320
Pro	Gly	His	Ser	Glu 325	Ile	Ser	Ser	Thr	Arg 330	Cys	Pro	Lys	Ala	Pro 335	Gly
Arg	Val	Leu	Val 340	His	Thr	Ser	Val	Ser 345	Pro	Ser	Pro	Asp	Asn 350	Leu	Arg
Arg	Phe	Ala 355	Leu	Glu	His	Glu	Ala 360	Ser	Asp	Leu	Val	Glu 365	Ile	Tyr	Leu
Trp	Lys 370	Leu	Val	Lys	Gly	11e 375	Phe	His	Leu	Thr	Gln 380	Ile	Lys	Lys	Val
Arg 385	Lys	Gln	Asp	Phe	Gln 390	Lys	Glu	Ala	Gln	His 395	Phe	Arg	Leu	Leu	Ala 400
Gly	Pro	His	Glu	Gly 405	His	Trp	Asn	Val	Phe 410	Leu	Ala	Gln	Thr	Leu 415	Glu
Leu	Lys	Val	Thr 420	Ala	Ser	Pro	Asp	Lys 425	Val	Thr	Lys	Thr			

<210> 5

<211> 1792

<212> DNA

<213> homo sapiens

<400> 5

gccttgcccg	gcgctgcgcg	ctcggcagac	gccggtcctc	tccctgcttt	ctcctcctct	60
ccctctcacc	ttcccccttt	ctttgatcgc	ctctcccttc	tgctggacct	tccttcgtct	120
ctccatctct	ccctcctttc	cccgcgttct	ctttccacct	ttctcttctt	cccaccttag	180
acctcccttc	ctgccctcct	ttcctgccca	ccgctgcttc	ctggcccttc	tccgaccccg	240
ctctagcagc	agacctcctg	gggtctgtgg	gttgatctgt	ggcccctgtg	cctccgtgtc	300
cttttcgtct	cccttcctcc	cgactccgct	cccggaccag	cggcctgacc	ctggggaaag	360
gatggttccc	gaggtgaggg	tcctctcctc	cttgctggga	ctcgcgctgc	tctggttccc	420
cctggactcc	cacgctcgag	cccgcccaga	catgttctgc	cttttccatg	ggaagagata	480



```
<210> 6
<211> 918
<212> DNA
<213> Homo sapiens
```

<400> 6

atgageetet tegggettet eetgetgaca tetgeeetgg eeggeeagag acaggggaet 60 120 caggcggaat ccaacctgag tagtaaattc cagttttcca gcaacaagga acagaacgga 180 gtacaagatc ctcagcatga gagaattatt actgtgtcta ctaatggaag tattcacagc 240 ccaaggtttc ctcatactta tccaagaaat acggtcttgg tatggagatt agtagcagta gaggaaaatg tatggataca acttacgttt gatgaaagat ttgggcttga agacccagaa 300 360 gatgacatat gcaagtatga ttttgtagaa gttgaggaac ccagtgatgg aactatatta 420 gggcgctggt gtggttctgg tactgtacca ggaaaacaga tttctaaagg aaatcaaatt aggataagat ttgtatctga tgaatatttt ccttctgaac cagggttctg catccactac 480 aacattgtca tgccacaatt cacagaagct gtgagtcctt cagtgctacc cccttcagct 540 ttgccactgg acctgcttaa taatgctata actgccttta gtaccttgga agaccttatt 600 660 cgatatcttg aaccagagag atggcagttg gacttagaag atctatatag gccaacttgg 720 caacttcttg gcaaggcttt tgtttttgga agaaaatcca gaggagataa ttatgaaaag 780 gaaaaaaatc tgaagaccaa cttttacaaa tatttggcag agggaaactt ctttaatatt 840 attatagtta agctattcaa aaagtatcct ttggtacatt atctttcttt cttctttcc 900 tttttctctt tatttgcctt cccccccaa aagtactata caatgtttca agaatgtatg 918 acatatgact taacttaa

```
<210> 7
<211> 305
<212> PRT
```

<213> Homo sapiens

<400> 7

Met Ser Leu Phe Gly Leu Leu Leu Leu Thr Ser Ala Leu Ala Gly Gln $1 \ 5 \ 10 \ 15$ Arg Gln Gly Thr Gln Ala Glu Ser Asn Leu Ser Ser Lys Phe Gln Phe





			20					25					30		
Ser	Ser	Asn 35	Lys	Glu	Gln	Asn	Gly 40	Val	Gln	Asp	Pro	Gln 45	His	Glu	Arg
Ile	Ile 50	Thr	Val	Ser	Thr	Asn 55	Gly	Ser	Ile	His	Ser 60	Pro	Arg	Phe	Pro
His 65	Thr	Tyr	Pro	Arg	Asn 70	Thr	Val	Leu	Val	Trp 75	Arg	Leu	Val	Ala	Val 80
				85					90					Gly 95	
Glu	Asp	Pro	Glu 100	Asp	Asp	Ile	Cys	Lys 105	Tyr	Asp	Phe	Val	Glu 110	Val	Glu
Glu	Pro	Ser 115	Asp	Gly	Thr	Ile	Leu 120	Gly	Arg	Trp	Cys	Gly 125	Ser	Gly	Thr
	130					135					140			Arg	
Val 145	Ser	Asp	Glu	Tyr	Phe 150	Pro	Ser	Glu	Pro	Gly 155	Phe	Cys	Ile	His	Tyr 160
Asn	Ile	Val	Met	Pro 165	Gln	Phe	Thr	Glu	Ala 170	Val	Ser	Pro	Ser	Val 175	Leu
			180					185					190	Thr	
		195					200					205		Arg	
Gln	Leu 210	Asp	Leu	Glu	Asp	Leu 215	Tyr	Arg	Pro	Thr	Trp 220	Gln	Leu	Leu	Gly
225					230					235				Glu	240
Glu	Lys	Asn	Leu	Lys 245	Thr	Asn	Phe	Tyr	Lys 250	Tyr	Leu	Ala	Glu	Gly 255	Asn
			260					265					270	Leu	
		275					280					285		Phe	
Pro	Gln 290	Lys	Tyr	Tyr	Thr	Met 295	Phe	Gln	Glu	Cys	Met 300	Thr	Tyr	Asp	Leu
Thr 305															